

(19)



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



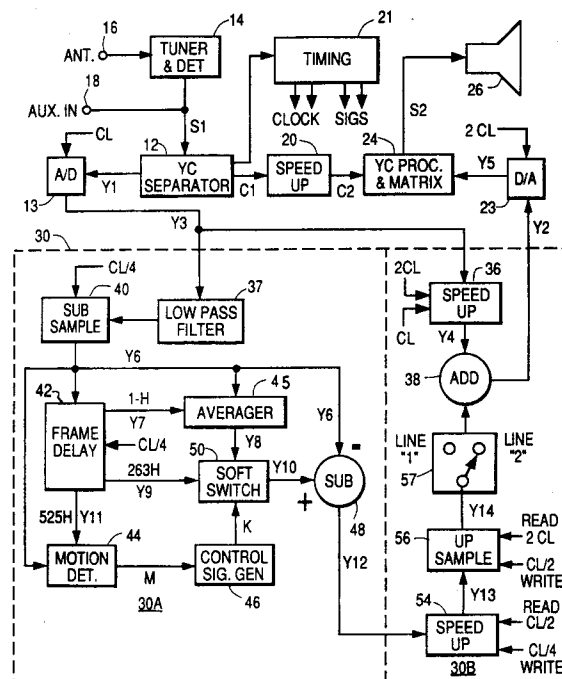
(11) Publication number:

**0 488 077 A3**

(12)

**EUROPEAN PATENT APPLICATION**(21) Application number: **91119948.7**(51) Int. Cl.<sup>5</sup>: **H04N 5/44**(22) Date of filing: **22.11.91**(30) Priority: **26.11.90 US 617983**(43) Date of publication of application:  
**03.06.92 Bulletin 92/23**(84) Designated Contracting States:  
**DE ES GB IT**(88) Date of deferred publication of the search report:  
**12.08.92 Bulletin 92/33**(71) Applicant: **THOMSON CONSUMER ELECTRONICS, INC.**  
**600 North Sherman Drive**  
**Indianapolis Indiana 46206(US)**(72) Inventor: **Willis, Donald Henry**  
**5175 E. 74th Place**  
**Indianapolis, Indiana(US)**(74) Representative: **Einzel, Robert, Dipl.-Ing.**  
**Deutsche Thomson-Brandt GmbH Patent- und Lizenzabteilung**  
**Göttinger Chaussee 76**  
**W-3000 Hannover 91(DE)**(54) **Progressive scan television system using luminance low frequencies from previous field.**

(57) A progressive scan processor (30) includes an input circuit (30A) which produces a video difference signal (Y12) representative of a difference between a first low frequency component (Y6) derived from a current line of a video input signal (Y3) and a second low frequency component (Y10) derived by motion adaptive processing (42-50) from a selected previous line of the video input signal. A line-rate doubling output circuit (30B) combines a line of the double line-rate difference signal (Y14) with every other line of the double line-rate input signal (Y4) to form a progressively scanned output signal (Y2). Advantageously, the system exhibits the relatively high vertical resolution and motion artifact immunity characteristic of motion adaptive systems as well as substantially reduced system memory requirements characteristic of "dual band" processors and it provides "dual band" processing of high and low frequency video components without the need for complementary band splitting filters having special amplitude and phase response characteristics.

**FIG. 1**



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number

EP 91 11 9948

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	GB-A-2 168 219 (RCA) * page 3, line 51 - line 88; figure 1 * ---	1	H04N5/44
A	JP-A-2 057 081 (TOSHIBA)	1	
A, P	& US-A-5 012 326 (SAKAMOTO) * column 7, line 4 - line 40; figure 6 * ---	1	
A	WO-A-8 603 921 (RCA) * page 25, line 32 - page 28, line 32; figures 3,5,10,11 * -----	1,2	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			H04N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 09 JUNE 1992	Examiner YVONNET J.W.
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			